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Reiko Ueno

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EXAMINER

MUSA, ABDELNABI O

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,234	Applicant(s) UENO ET AL.	
	Examiner ABDELNABI O. MUSA	Art Unit 2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made for the applicant's response and amendment filed on 03/18/2009.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/18/2009 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim(s) 43-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanekar et al. Patent No (US. 6,751,191 B1) in view of Beatty et al. Patent No. (US 5,602,754).

As per **claim 43** Kanekar teaches a method of starting a first routing device connecting a plurality of networks (FIG.2) to which a plurality of routing devices are connected (FIG.8),

wherein each routing device (204) stores master router (202) data (208) for each network (FIG.2) to which the routing device (R2) is connected and network identification data (FIG.4) (routing device stores configuration file of master router Col.3, Line 15; FIG.14B),

wherein the network identification (1304) data of each respective routing device (C1, C2) identifies a network (FIG.13) to which the respective routing device (C1) is connected (1310) (the device identification information defines the network Col.3, line 57-65; FIG.14),

the method comprising:

requesting (122), by the first routing device (R2), the master router (R1) data (FIG.13A) from each routing device (C1) connected to any of the networks (FIG.7) to which the first routing device connects (host obtains data information from master router to connect Col.8, line 65; FIG.9); and

disabling a router function (208) of the first routing device when, in relation to the networks to which the first routing device connects, a number of detected master routers connected to any of the networks (FIG.2) to which the first routing device connects is zero or two or more (the master router forwards packets until fails then the slave router takes over Col.15-40; FIG.9), such that a loop path is prevented from forming between the first routing device and the plurality of routing devices, the number being based on acquired master router data (FIG.13) received from the routers (C1,c2) in response to the requesting (122) of the master router data (800) (FIG.8)

Kanekar fails to teach the specifics wherein the master router data stored by each routing device indicates whether the respective routing device is a master router or a slave router with respect to each network to which the respective routing device is connected, with respect to each network the master router is a router that is connected to a network, from among the plurality of networks connected to each routing device, and place a limit on the routing devices connected such that a loop path is prevented from forming between the first routing device and the plurality of routing devices

However, Beatty teaches a master process and a slave process is started for each entity from a plurality of entities within a computer system. The master processes schedule operations to be performed, while the slave processes perform the operations, which each designated as master/slave based on the network that connects to. One slave process is coupled to one or more other slave processes because of path interconnections between the entities. Communication is established between any coupled slave processes such that one slave process may directly communicate with another slave process without involving the master processes. The master and slave processes execute in parallel on a plurality of processors (Col.2, line 3-43; FIG.4) After each of the master and slave processes are started, each sub-master reads a control file to determine its design, as shown in FIG.1 at STEP 406 "READ ENTITIES 2, 3 AND N." During the read process, master process 2 determines that a master process needs to be started for entity 4 and thus, master process 4 is started. Thereafter, each of the sub-master processes starts a respective slave process, STEP 408 "START MASTER AND SLAVE PROCESSES (Col.4, Line 7-52; FIG.2) When the

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root master process receives the completed signal from all its children, it determines if there are any changes. If there are changes, the timing process is repeated, it is possible to place a limit on the number of iterations to be performed. If that number is exceeded, then the process is stopped and an error condition is indicated to prevent a loop path from forming between the first routing device and the plurality of routing devices (Col.11, Line 64; FIG.7) In order to efficiently execute a complex task within a computer system, the task is partitioned into a plurality of entities and decrease processing time of the complex task (Col.4, Line 42-52; Col.5, Line 15; FIG.7)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified Kanekar by the teaching of Beatty to indicates whether the respective routing device is a master router or a slave router with respect to each network to which the respective routing device is connected and place a limit on the routing devices connected such that a loop path is prevented from forming between the first routing device and the plurality of routing devices to efficiently execute a complex task within a computer system, the task is partitioned into a plurality of entities and decrease processing time of the complex task. (Col.4, Line 42-52; Col.5, Line 15; FIG.7)

As per **claim 44** Kanekar teaches the method according to claim 43, wherein, when receiving data (FIG.13) relating to a request for an attribute of a routing device (R3), a routing device returns a response (1416), even if a hop count is zero and the network identification data (FIG.13) of the source of the received data (H3) is different

from the network identification stored in the routing device (R3) which received the request for the attribute (multiple hops and multiple router act on data functions according to threshold Col.15, Line 53-65; FIG.14)

As per **claim 45** Kanekar teaches the method according to claim 43, wherein, when a communication device (C1) connected to the networks (FIG.2) stores network identification data (208) to identify a network to which the communication device connects (each command line of FIG.4 identifies a particular router and a path to connect to the network Col.7; Line 5-17; FIG.7), the method further comprises transmitting requests for reading out network identification data (FIG.13) to communication devices (FIG.8) connected to any of the networks (FIG.2) to which the first routing device (R1) is connected, and disabling the router function (R2 stands by when R1 functioning well) of the first routing device (R1) when a configuration (208) of the networks (FIG.2) to which the first routing device is connected is different from a configuration of networks stored by the first routing device (the master and the slave routers may deliver different routing decisions Col.4, Line 1-17; FIG.3)

As per **claim 46** Kanekar teaches the method according to claim 43, further comprising transmitting a request (1308) for reading out information (1310) relating to the parent router (1309) to a routing device (R3) which stores master router (R1) data (1410) indicating a master router (FIG.14).

As per **claim 47** Kanekar teaches the method according to claim 43, wherein only the master router requests writing of the network identification data to communication devices other than the routing devices (the master router forwards packets to devices until fails 1116; FIG.11), the master router accepts a request for writing the network identification data (FIG.13) only from the parent router (R2), and the parent router does not accept the request for writing the network identification data (the slave router functions only if the master router fails 1200; FIG.12)

Claims 48-53 are related to the same limitation set for hereinabove, where the difference used is interchanged the wording on the claims within the claim itself and was differently presented from the above treated claims. This change does **NOT** effect the **limitation** of the above treated claims. The citations from the prior art have been inserted as needed. Refer to the cited prior art for more details. Even though claim(s) 48-53, and 55-58 have been differently written from the above treated claims, yet the limitations did NOT change. As mentioned, claim 48 is the same as claim 43, claim 49 is the same as claim 46, claim 50 is the same as claim 49, claim 51 is the same as claim 47, claim 52 is the same as claim 51, claim 53 is the same as claim 52, again there is no difference in **limitations** between claims 48-53 and the above treated claims, Refer to MPEP on claim format and presentations

As per **claim 54** Kanekar teaches a computer-readable recording medium having a program recorded thereon, the program causing a computer to execute the method of

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claim 43 (a computer program implemented in memory to run operations Col.16, Line 58; FIG.15)

Claims 55-58 are related to the same limitation set for hereinabove, where the difference used is interchanged the wording on the claims within the claim itself and was differently presented from the above treated claims. This change does **NOT** effect the **limitation** of the above treated claims. The citations from the prior art have been inserted as needed. Refer to the cited prior art for more details. Even though claim(s) 48-53, and 55-58 have been differently written from the above treated claims, yet the limitations did NOT change. As mentioned, claim 55-58 contain the same limitations presented hereinabove in claim 55, again there is no difference in **limitations** between claims 55-58 and the above treated claims, Refer to MPEP on claim format and presentations

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim(s) 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanekar et al. Patent No (US. 6,751,191 B1) in view of Beatty et al. Patent No. (US 5,602,754) further in view of Fukushima et al. Patent No. (US 6,049,524 A1).

As per **claim 59** the modified Kanekar teaches the method according to claim 43 but fails to teach wherein the method is performed when the first routing device is newly connected to the network and when the first routing device replaces a previous router,

However, Fukushima teaches a router device for routing packets to destinations on networks, and a system switchover technology in a router device having a redundant configuration., A router that forwards packets between the terminals of different networks and exchange routing information with another router to perform dynamic routing of packets, when a newly-detected neighboring router (step 123) the module 14 notifies the protocol information manager module 15 of such router to be identified (Col.3, line 48; Col.10, Line 16-54; FIG.8)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified the modified Kanekar by the teaching of Fukushima identifying the router when first connected to a network or a router replaces a previous router and providing a loop bath between router to effectively identify the newly connected routers and implement load sharing scheme among multiple routers operating a single device.

Response to Arguments

5. Applicant's arguments with respect to the claim 59 have been considered but are moot in view of the new ground(s) of rejection

Conclusion

6. When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelnabi O. Musa whose telephone number is 571-2701901. The examiner can normally be reached on Monday thru Friday: 7:30am to 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on 571-2726798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. O. M./
Examiner, Art Unit 2446

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446